Serial Number: 10/600,048 Filing Date: June 19, 2003

Title: COMMUNICATION PORTS IN A DATA DRIVEN ARCHITECTURE

Assignee: Intel Corporation

### **REMARKS**

This responds to the Office Action mailed on <u>January 28, 2005</u>. Claims 1-30 are pending in this application.

## **Specification**

The Examiner objected to the specification as not including a "Summary of the Invention" section and required Applicant to amend the patent application to include such a section. Applicant hereby respectfully traverses the objection and kindly points out to the Examiner that a "Summary of the Invention" section is optional since neither the rules nor the patent statute requires a patent applicant to provide such summary. As discussed in 37 CFR 1.73:

A brief summary of the invention indicating its nature and substance, which may include a statement of the object of the invention, should precede the detailed description. Such summary should, when set forth, be commensurate with the invention as claimed and any object recited should be that of the invention as claimed [emphasis added]. 37 CFR 1.73.

Thus, Applicant respectfully points out that the use of the word "should" and the phrase "when set forth" indicates that inclusion of a "Summary of the Invention" section is optional rather than mandatory. As a result, it is believed there is no legal basis upon which to require a patent applicant to provide a "Summary of the Invention" section in a patent application or to require an applicant to amend the patent application to include such a summary. Therefore, the objection and any requirement related thereto should be withdrawn.

# §102 Rejection of the Claims

Claims 1-12 and 18-30 were rejected under 35 USC § 102(b) as being anticipated by Isfeld et al. (U.S. 5,828,835). This rejection is respectfully traversed.

Anticipation under 35 USC § 102 requires the disclosure in a single prior art reference of each element of the claim under consideration. *In re Dillon* 919 F.2d 688, 16 USPQ 2d 1897,

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1908 (Fed. Cir. 1990) (en banc), cert. denied, 500 U.S. 904 (1991). It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, "[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, arranged as in the claim." Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added). "The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP § 2131 (emphasis added).

# "Port Ring" Limitation

With regard to claims 1, 7, 18 and 25, the Office Action indicated that the limitations therein are disclosed by Isfeld at column 41, lines 21-23 and column 6, lines 26-32. Among the differences, claim 1 recites "a first processor having a first processor element and at least one input/output (I/O) port within a first port ring." (emphasis added). With regard to claim 7, among the differences, the claim recites "one image signal processor . . . includes at least one processor element and a port ring." (emphasis added). With regard to claims 18 and 25, among the differences, the claims recite "forwarding an output of the image process operation through a logical connection that includes a data path through a number of ports of port rings of a number of image signal processors, independent of image process operations in the number of image signal processors." (emphasis added).

Isfeld at column 41, lines 21-23 relates to a number of processor having input/output ports that are coupled to "data networks". Isfeld at column 6, lines 26-32 relates to processors having network connections, "which might be coupled to, for instance, Ethernet or token ring local area networks." Isfeld at column 6, lines 26-32. The ring in this section of Isfeld relates to a type of network – a token ring. Therefore, the processors have I/O ports that are coupled to a network – a token ring. These citations in Isfeld do not disclose a processor having an I/O port within a port ring.

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# "Logical Connection" Limitation

Also with regard to claims 18 and 25, these claims recite "forwarding an output of the image process operation through a <u>logical connection</u>." (emphasis added). Claims 21 and 28 recite "receiving configuration data for a <u>logical connection</u> established for transmission of image data from a source image signal processor to a destination image signal processor through a number of intermediate image signal processors [and] registering the <u>logical connection</u>." (emphasis added). Examples of the logical connection are described with reference to Figure 10 in the present application.

The Office Action indicated that this limitation was disclosed by Isfeld at column 41, lines 21-26 and column 8, lines 46-53. These sections of Isfeld relate to a transmitting of messages among a plurality of processors. However, these sections do not disclose a logical connection that is registered among processors. In contrast, Isfeld discloses that a particular message between two processors is without a connection in advance of send the particular message:

sending a particular message selected from the first and second transmit queues in the source processor according to a queue priority rule to the destination processor without establishing connection with the destination processor for the particular message in advance of sending the particular message.

Isfeld at column 37, lines 48-53.

Therefore, Isfeld does not include the generation or use of a logical connection.

Because Isfeld does not disclose each element of claims 1, 7, 18 and 25, Applicant respectfully submits that the rejection of these claims under 35 U.S.C. §102 has been overcome. Because claims 2-6, 8-12, 19-21, 23-24, 26-27 and 29-30 depend from and further define claims 1, 7, 18, 22, 25 and 28, Applicant respectfully submits that the rejection of the dependent claims under 35 U.S.C. §102 has been overcome.

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# §103 Rejection of the Claims

Claims 13-17 were rejected under 35 USC § 103(a) as being unpatentable over Isfeld et al. (U.S. 5,828,835) in view of Hsieh et al. (U.S. 6,757,019). This rejection is respectfully traversed. Applicant does not admit that Hsieh is prior art and reserves the right to swear behind this reference as provided under 37 C.F.R. 1.131.

The Examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d (BNA) 1596, 1598 (Fed. Cir. 1988) and *In re Piasecki*, 745 F.2d at 1472, 223 U.S.P.Q. at 788. If the Examiner does not establish a prima facie case, the applicant is under no obligation to submit evidence of non-obviousness. M.P.E.P. § 2142. To establish a prima facie case of obviousness, three criteria must be met.

First, the reference (or references) relied upon must teach or suggest all the limitations of the claims. See *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970) ("All words in a claim must be considered in judging the patentability of that claim against the prior art.").

Second, the reference (or references) relied upon, coupled with the knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or to combine references. See *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In re Skinner*, 2 U.S.P.Q.2d 1788, 1790 (Bd. Pat. App. & Int. 1986).

Third, the proposed modification of the reference (or references) relied upon must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. In other words, a hindsight analysis is not allowed. See *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200, 1209, 18 U.S.P.Q.2d 1016, 1023 (Fed. Cir. 1991); *In re Erlich*, 3 U.S.P.Q.2d 1011, 1016 (Bd. Pat. App. & Int. 1986).

# All of the Limitations of the Claims are not Taught or Suggested

Isfeld and Hsieh, alone or in combination, do not disclose or suggest all of the limitations of claims 13-17. Among the differences, claim 13 recites "wherein at least one image signal processor of the number of image signal processors comprises a processor element and a port

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ring having a number of input/output ports to couple the at least one image signal processor to other image signal processors in the image processor in a point-to-point configuration." (emphasis added). The Office Action indicated that this limitation is disclosed by Isfeld at column 41, lines 21-23 and column 6, lines 26-32.

As described above, Isfeld relates to a couple of a number of processors to "data networks". The ring in this citation relates to a type of network – a token ring. Therefore, the processors have I/O ports that are coupled to a network – a token ring. These citations in Isfeld do not disclose a processor having an I/O port within a port ring.

Moreover, claim 13 recites "a host processor to configure a number of logical connections among the number of image signal processors." The Office Action indicated that this limitation is disclosed by Isfeld at Figure 7, Item No. 3.

As described above, Isfeld relates to a transmitting of messages among a plurality of processors. However, these sections do not disclose a logical connection that is registered among processors. In contrast, Isfeld discloses that a particular message between two processors is without a connection in advance of send the particular message. See Isfeld at column 37, lines 48-53, recited above.

Thus, the Examiner cannot maintain that a *prima facie* case of obviousness has been made. Accordingly, Applicant respectfully submits that the rejection of claims 13-17 under 35 U.S.C. §103 has been overcome

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### Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 371-2103) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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<u>CERTIFICATE UNDER 37 CFR 1.8:</u> The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 31st day of <u>May, 2005</u>.

Name

Signature